2SC5931

Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV, CRT monitor

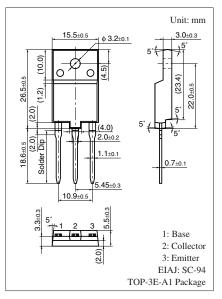
Features

- High breakdown voltage: $V_{CBO} \ge 1700 \text{ V}$
- High speed switching: $t_f < 200$ ns
- Wide safe operation area

Parameter	Symbol	Rating	Unit	
	,	1 700	V	
Collector-base voltage (Emitter open)		V _{CBO}		
Collector-emitter voltage	V _{CES}	1 700	V	
Collector-emitter voltage	V _{CEO}	600	V	
Emitter-base voltage (Collector open)		V _{EBO}	7	V
Base current		IB	7.5	А
Collector current	I _C	15	А	
Peak collector current *		I _{CP}	25	А
Collector power dissipation		P _C	60	W
	$T_a = 25^{\circ}C$		3	
Junction temperature		Tj	150	°C
Storage temperature		T _{stg}	-55 to +150	°C

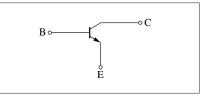
Absolute Maximum Ratings $T_C = 25^{\circ}C$

Note) *: Non-repetitive peak collector current



Marking Symbol: C5931

Internal Connection

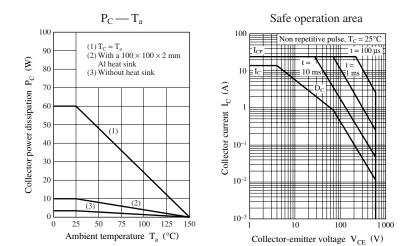


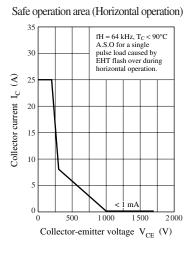
Electrical Characteristics $T_C = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Мах	Unit
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = 1000 \text{ V}, I_E = 0$			50	μΑ
		$V_{CB} = 1700 \text{ V}, I_E = 0$			1	mA
Emitter-base cutoff current (Collector open)	I _{EBO}	$V_{EB} = 7 V, I_C = 0$			50	μΑ
Forward current transfer ratio	h _{FE}	$V_{CE} = 5 V, I_C = 7.5 A$	5		10	—
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 7.5 \text{ A}, I_B = 1.88 \text{ A}$			3	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_{\rm C} = 7.5 \text{ A}, I_{\rm B} = 1.88 \text{ A}$			1.5	V
Transition frequency	f _T	$V_{CE} = 10 \text{ V}, I_C = 0.1 \text{ A}, f = 0.5 \text{ MHz}$		3		MHz
Storage time	t _{stg}	$I_C = 7.5$ A, Resistance loaded			2.7	μs
Fall time	t _f	$I_{B1} = 1.88 \text{ A}, I_{B2} = -3.75 \text{ A}$			0.2	μs

Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

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